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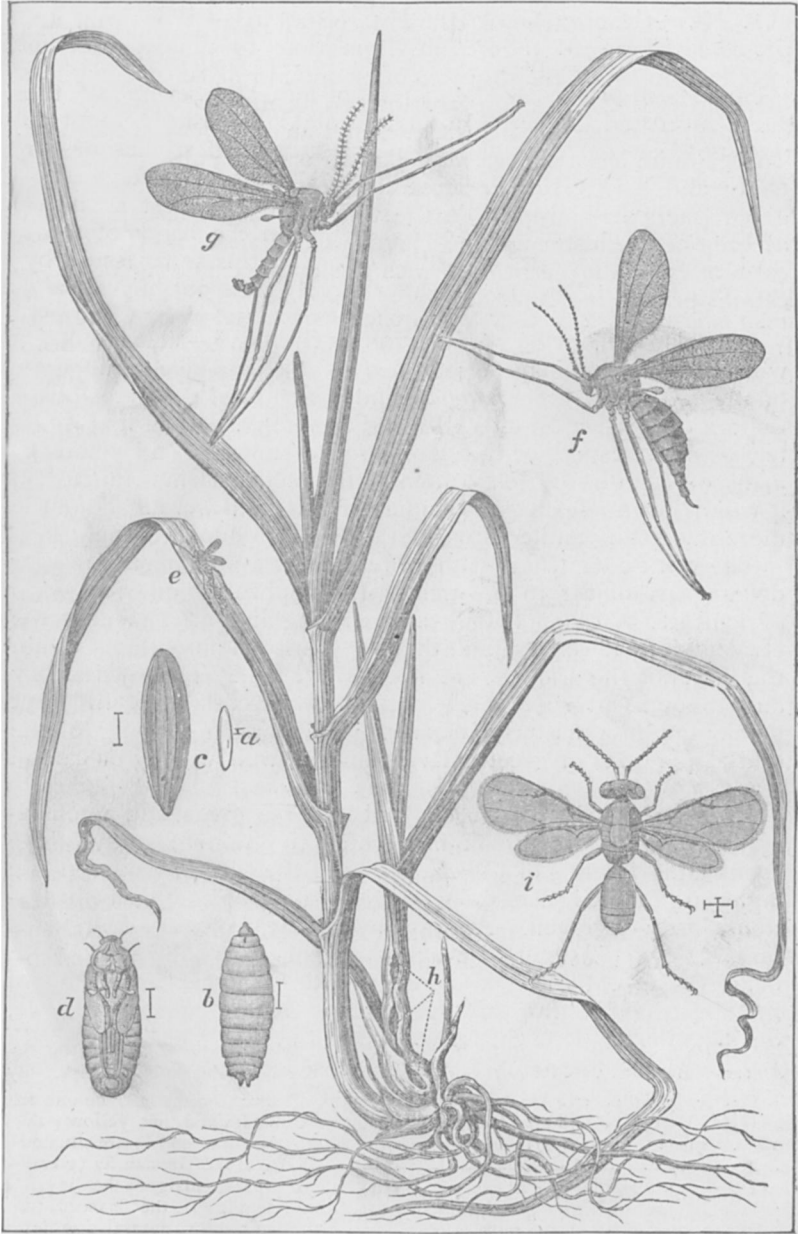
bodies projecting through the wide openings of the segmental tubes into the body-cavity."

THE HESSIAN FLY.¹—The object of this and several of the Bulletins issued by the Entomological Commission is not so much to show evidence of special and new field studies or for the display of entomological learning, as to set forth well-known facts regarding the more injurious insects and the best means of combating them, and to place the results in the hands of those most interested, *i. e.*, the farmers. The Bulletins so far issued by the Department of the Interior, have rapidly gone out of print, and fresh editions furnished either by the Department or by Congress. It was contemplated to issue others, and this could have been done, with little expense to the country and without detriment to the objects for which the Entomological Commission was working, *i. e.*, the thorough investigation of the locust plague and the depredations of the cotton-worm; but such a design was considered unlawful and nefarious by the Commissioner of Agriculture, and every effort was made by that enlightened official, aided by his entomologist, to not only stop the issue of such bulletins as the one before us, but to extinguish the Commission outright. While Congress voted larger appropriations than ever before to the Commission, the immediate result of Gen. Le Duc's labors was to restrict the labors of the Commission for the coming year to the locust and cotton-worm. All this is directly in the line pursued by some of our former agricultural commissioners, and evinces the wisdom of political appointments, *i. e.*, of ex-judges and railroad contractors, for a position which could be made one of great importance and usefulness if worthily filled.

The plate² reproduced gives an idea of the Hessian fly and its transformations, and its chief parasite, the *Semiotellus destructor*. Not much, though some new matter has been added to what was previously known as to the habits of this insect or the remedies against its attacks, but the chronological table of years of abundance of the Hessian fly, may prove of interest as well as the bibliographical list.

¹ *Department of the Interior. U. S. Entomological Commission. Bulletin No. 4. The Hessian Fly, its Ravages, Habits, Enemies and means of preventing its increase.* By A. S. PACKARD, Jr. Washington, May 20, 1880. 8vo, pp. 43.

² EXPLANATION OF THE PLATE.—A healthy stalk of wheat on the left, the one on the right dwarfed and the lower leaves beginning to wither and turn yellow; the stem swollen at three places near the ground where the flaxseed (*h*) are situated, between the stem and sheathing base of the leaf. *a*, egg of the Hessian fly (greatly enlarged, as are all the figures except *e* and *h*). *b*, the larva, enlarged, the line by the side, in this and other figures, showing the natural length. *c*, the flaxseed, puparium or pupa case. *d*, the pupa or chrysalis. *e*, the Hessian fly, natural size, laying its eggs in the creases of the leaf. *f*, female Hessian fly, much enlarged. *g*, male Hessian fly, much enlarged. *h*, flaxseed between the leaves and stalk. *i*, chalcid or ichneumon parasite of the Hessian fly, male, enlarged.



THE HESSIAN FLY, AND ITS TRANSFORMATIONS.